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(54) Title: SINGLE CHAIN RECOMBINANT T CELL RECEPTORS

(57) Abstract: A single chain T cell receptor (scTCR) comprising an a segment constituted by a TCR  $\alpha$  chain variable region sequence fused to the N terminus of a TCR  $\alpha$  chain constant region extracellular sequence, a  $\beta$  segment constituted by a TCR  $\beta$  chain variable region fused to the N terminus of a TCR  $\beta$  chain constant region extracellular sequence, and a linker sequence linking the C terminus of the  $\alpha$  segment to the N terminus of the  $\beta$  segment, or vice versa, the constant region extracellular sequences of the  $\alpha$  and  $\beta$  segments being linked by a disulfide bond, the length of the linker sequence and the position of the disulfide bond being such that the variable region sequences of the  $\alpha$  and  $\beta$  segments are mutually orientated substantially as in native  $\alpha\beta$  T cell receptors. Complexes of two or more such scTCRs, and use of the scTCRs in therapy and in various screening applications are also disclosed.



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